Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. - 52. (Canceled).

53. (Currently amended) A system for verifying an oil or gas well fluid mixture, comprising:

a mixing unit adapted to create the well fluid mixture from at least two components in prescribed ratio, the fluid mixture having a target density;

a densimeter having a first end and a second end, the second end of the densimeter being located a selected distance downstream from the first end of the densimeter, the densimeter having a bore for the flow of the fluid mixture;

a weight measuring device capable of measuring the weight of the densimeter as the fluid mixture passes there through without appreciable time delay;

an inlet conduit establishing fluid communication between the mixing unit and the densimeter;

a first flexible connector coupling the first end of the densimeter to a portion of the inlet conduit so that the first end of the densimeter can move relative to the inlet conduit;

a second flexible connector coupling the second end of the densimeter to ~~a portion of the~~an outlet conduit so that the second end of the densimeter can move relative to the outlet conduit;

a control unit adapted to calculate the density of the fluid mixture flowing through the densimeter based on the weight of the ~~of the~~ fluid mixture in the densimeter and adapted to compare the calculated density with the target fluid mixture density; and wherein the ratio of components in the mixing unit can be varied to make the calculated density more closely match the target density thereby verifying the fluid mixture for use in an oil or gas well.

54. (Previously presented) The system of claim 53, wherein the weight measuring device is positioned below the densimeter and is capable of supporting the weight of the densimeter.

55. (Previously presented) The system of claim 54, wherein the weight measuring device comprises at least one compression-type load cell.

56. (Previously presented) The system of claim 53, wherein the weight measuring device is positioned above the densimeter and is capable of supporting the weight of the densimeter.

57. (Previously presented) The system of claim 53, wherein the weight measuring device comprises at least one tension-type load cell.

58. (Previously presented) The system of claim 53, wherein the densimeter extends in a non-vertical direction.

59. (Previously presented) The system of claim 53, wherein a longitudinal axis of the densimeter is substantially straight from the first end of the densimeter to the second end.

60. (Previously presented) The system of claim 53, wherein a cross-sectional area of the densimeter is uniform for the entire length of the densimeter extending from the first end to the second end.

61. (Currently amended) The ~~measuring~~ system of claim 53, wherein the fluid mixture comprises a proppant slurry and has a target density greater than approximately the density of water.

62. (Previously presented) The system of claim 53, wherein the fluid mixture comprises a cement slurry and has a target density greater than approximately the density of water.

63. (Previously presented) A method of preparing a fluid mixture for use in an oil or gas well before the fluid mixture is pumped into the well, comprising:
flowing a first fluid having a known density through a pipeline;
calibrating a weight measuring unit that is capable of measuring the weight of a selected section of the pipeline as the first fluid flows through the selected section of the pipeline;
creating a fluid mixture for an oil or gas well having a desired density resulting from a prescribed ratio of mixture components;
flowing through the pipeline the fluid mixture;
measuring the weight of the selected section of the pipeline as the fluid mixture flows through the selected section without an appreciable time delay;
determining the density of the fluid mixture as the fluid mixture flows through the selected section of the pipeline; and
comparing the determined density with the desired density to verify the preparation of the fluid mixture.

64. (Previously amended) The method of claim 69, wherein the control system continuously measures the density of the fluid mixture as the fluid mixture flows through the densimeter.

65. (Previously presented) The method of claim 63, wherein the density of the fluid mixture is determined while the fluid mixture is in a process pipe on a shipping vessel.

66. (Previously presented) The method of claim 65, wherein the shipping vessel is a truck.

67. (Currently amended) The method of claim 63, wherein the fluid ~~mixtures~~ mixture comprises a proppant slurry and has a desired density greater than approximately the density of water.

68. (Previously presented) The method of claim 63, wherein the fluid mixture comprises a cement slurry and has a desired density greater than approximately the density of water.

69. (Previously presented) The method of claim 63, wherein comparing the determined density to the desired density is done by a control system.

70. (Previously presented) The method of claim 63, further comprising adjusting the ratio of components of the mixture while creating the mixture based on the comparison of the determined density to the desired density.